North Coast
Regional Water Quality Control Board
Watershed Planning Chapter

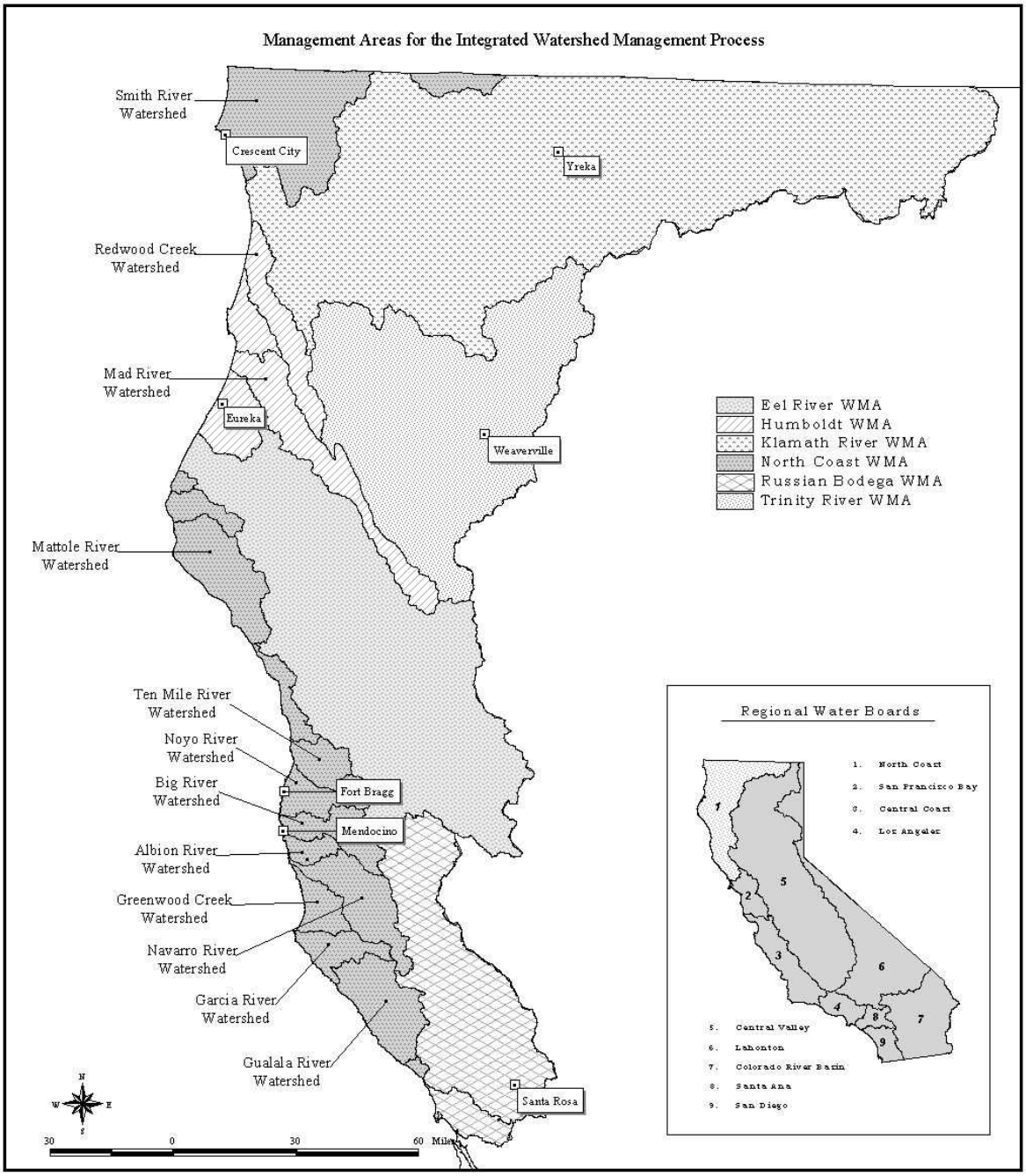

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TABLE OF CONTENTS

NORTH COAST REGION
WATERSHED PLANNING CHAPTER
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EXECUTIVE SUMMARY

The water resource protection efforts of the State Water Resources Control Board and the Regional Water Quality Control Boards are guided by a five year Strategic Plan (updated in 2001). A key component of the Strategic Plan is a watershed management approach for water resources protection.

To protect water resources within a watershed context, a mix of point and nonpoint source discharges, ground and surface water interactions, and water quality/water quantity relationships must be considered. These complex relationships present considerable challenges to water resource protection programs. The State and Regional Boards are responding to these challenges with the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative and collaborative efforts within watersheds. It is also designed to focus limited resources on key issues.

Past State and Regional Board programs tended to be directed at site-specific problems. This approach was reasonably effective for controlling pollution from point sources. However, with diffuse nonpoint sources of pollutants, a new regulatory strategy was needed. The WMI uses a strategy to draw solutions from all interested parties within a watershed, and to more effectively coordinate and implement measures to control both point and nonpoint sources.

During initial implementation of the WMI, each Regional Board identified the watersheds in their Region, prioritized water quality issues, and developed watershed management strategies. These strategies and the State Board's overall coordinating approach to the WMI are contained in the Integrated Plan for Implementation of the WMI of which this Watershed Planning Chapter is a part.

The Watershed Management Initiative is intended to support the goals in the Strategic Plan:

1. The Board's organizations are effective, innovative and responsive
2. Surface waters are safe for drinking, fishing, swimming, and support healthy ecosystems and other beneficial uses
3. Ground water is safe for drinking and other beneficial uses
4. Water resources are fairly and equitably used and allocated consistent with public trust
5. Individuals and other stakeholders support our efforts and understand their role in contributing to water quality
6. Water quality is comprehensively measured to evaluate protection and restoration efforts.

Most State and regional board programs are funding driven and directed at categories of problems. Traditional program management can be near-sighted, focused only on the program goals and outputs without obvious relationships to other problems. Added to the mix are "unfunded mandates," those tasks that are required or requested, but without attendant funding.

Addressing water resource issues on a watershed basis is founded in determining the problems and needs independently of funding sources. In this way the analysis of problems and needs and their prioritization is unencumbered by program constraints. The melding of the pure analysis of needs and relationships in a watershed with programs presents an administrative challenge. But in these lean times, priorities by watershed provide a good framework for ensuring that staff and contract resources are applied to the most important issues first.

Addressing problems on a more holistic basis with a collaborative approach involving landowners and other agencies in a watershed represents a new and challenging role for government. The WMI seeks to facilitate solutions from all interested parties in a watershed, and coordinate measures to improve watershed health, and ultimately the beneficial uses of water.

Each regional board has identified watersheds in their region, prioritized water quality issues, and developed their own watershed management strategies. Each region's strategy is then a "chapter" in the statewide plan. This document constitutes the North Coast Region's WMI Chapter for that integrated statewide plan.

The North Coast region, which comprises all basins draining into the Pacific Ocean from the California-Oregon state line (including Lower Klamath Lake and Lost River Basins) south to the southerly boundary of the watershed of the Estero de San Antonio and Stemple Creek in Marin and Sonoma Counties. The North Coast Region covers all of Del Norte, Humboldt, Trinity, and Mendocino Counties, major portions of Siskiyou and Sonoma Counties, and small portions of Glenn, Lake, and Marin Counties. The North Coast Region encompasses a total area of approximately 19,390 square miles, including 340 miles of scenic coastline and remote wilderness areas, as well as urbanized and agricultural areas.

Distinct temperature zones characterize the North Coast Region. Along the coast, the climate is moderate and foggy and the temperature variation is not great. For example, at Eureka, the seasonal variation in temperature has not exceeded an average of 63 F for the period of record. Inland, however, seasonal temperature ranges in excess of 100 F have been recorded.

Precipitation over the North Coast Region is higher than for any other part of California, and damaging floods are a fairly frequent hazard. Particularly devastating floods occurred in the North Coast area in December of 1955, in December of 1964, and in February of 1986. Ample precipitation in combination with the mild climate found over most of the North Coast Region has provided a wealth of fish, wildlife, and scenic resources. The mountainous nature of the Region, with its dense coniferous forests interspersed with grassy or chaparral covered slopes, provides shelter and food for deer, elk, bear, mountain lion, furbearers and many upland bird and mammal species. The numerous streams and rivers of the Region contain anadromous fish, and the reservoirs, although few in number, support both coldwater and warmwater fish.

Tidelands, and marshes too, are extremely important to many species of waterfowl and shore birds, both for feeding and nesting. Cultivated land and pasturelands also provide supplemental food for many birds. Tideland areas along the north coast provide important habitat for marine invertebrates and nursery areas for forage fish, game fish, and crustaceans. Offshore coastal rocks are used by many species of seabirds as nesting areas.

Major components of the economy are tourism and recreation, telecom and other high technology businesses, logging and timber milling, aggregate mining, commercial and sport fisheries, and agricultural activities including vineyards, wineries, and sheep, beef and dairy production.

Watershed Management Initiative Process

To assist in the WMI process, six watershed management areas (WMAs) were designated in the Region: Klamath River, Trinity River, Humboldt, Eel River, Russian/Bodega, and North Coast Rivers. The Region began with a rotating basin approach, applying a sequential planning process to each WMA on a rotating basis. They would first be assessed and problems, issues and concerns identified using an in-house watershed team and public meetings in the WMA. Goals and actions to address the

goals would be strategized and an implementation phase would follow. The end of the cycle would be an evaluation step that would feed into the next assessment.

It soon became clear that staff resources were not sufficient to perform all the steps within the original time frame. While we are still maintaining a schedule for rotations, the level to which each element is developed is dependent on funding. As a result, the individual WMA sections within the Chapter vary in depth and timing.

In general, the process has improved communication within the office and in some watersheds has improved communication among agencies and the public. Documented in this Chapter are numerous issues and problems as well as ideas to address them. There are assignments of relative importance (priority) for those actions and budget information to assist in redirecting resources or requesting new resources.

Water Quality Issues

The North Coast Region faces several water quality issues. The highest priority water quality problems include contamination of surface water due to nonpoint source pollution from storm water runoff, erosion and sedimentation (roads, vineyards, and timber harvest), channel modification, gravel mining and dairies, and MTBE, PCE, and dioxin contamination. Ground water contamination from leaking underground tanks and health and safety issues from contaminated areas that are open to the public are also priority issues. High priority water quality problems due to point sources include chronic violations by POTWs and lack of permit compliance. Lack of funding for water quality monitoring and watershed assessment compounds the difficulty of addressing these issues.

The highest priority activities to address those problems include:

- protect and restore water quality and beneficial uses
- maintaining the core regulatory program for regulated dischargers
- developing and implementing Total Maximum Daily Load strategies (mostly sediment and temperature associated with salmonid resource declines)
- increasing emphasis on storm water runoff issues
- increasing monitoring and assessment activities
- increasing emphasis on nonpoint source issues (including forestry and agriculture), especially as they affect salmonid resources
- improving outreach and community involvement in decisions
- fostering watershed groups and volunteer monitoring
- ensuring prompt and appropriate enforcement

Organization for WMI

To advance implementation of the WMI the North Coast Region has reorganized along watershed lines. At the beginning of FY 99 – 00 three new office divisions were formed: 1) the Timber Harvest Division, 2) the Cleanup and Special Investigation Division and 3) the Watershed Protection Division. The Timber Harvest Division, Watershed Protection Division, and Cleanup and Special Investigation Division include several technical units, arranged by watershed. With the realization that certain region-wide issues were not being addressed, in the fall of 2000 a second wave of reorganization took place. A forth division was created: the Regional Watershed Management Division which houses three units: assessment and monitoring, planning, and Total Maximum Daily Loads (TMDLs).

To help implement our intended transition to a watershed organization, we have integrated, to the extent possible, all of our programs along watershed lines. The budget process, planning for permits, inspections and enforcement are largely driven by watershed needs. The creation of our new

watershed divisions was influenced by needs within watersheds and the division of program resources to address those needs.

The North Coast Regional Water Quality Control Board (RWQCB or Regional Water Board or NCR) sets staff priorities each fiscal year (FY). Those priorities are generally organized in relation to watershed needs; however; the Regional Water Board will take all factors into account in setting final priorities. Most legislative mandates do not take watershed needs into account. However, the Regional Water Board usually exercises appropriate discretion within programs to assure that resources are applied where needs are the greatest.

Funded versus Unfunded Actions
Where unfunded activities are necessary to protect water quality, the Regional Water Board may use discretionary resources, in a limited fashion, to address those needs. When needs are established the Regional Water Board seeks new resources to address water quality issues. An example is the Regional Water Board's hillside vineyard program. Vineyard activities on hillsides can adversely affected water quality due to sedimentation. In previous years, no program existed to address the issue short of after-the-fact enforcement. Nonpoint source funds were sought and received to address the issue. Now the Regional Water Board has an outreach program to help prevent problems before they happen and enforcement is still available where required.

As the Regional Water Board continues the transition to a watershed-oriented region, the budgeting process will be driven by watershed needs and priorities. Currently, establishing Total Maximum Daily Loads (TMDLs) and other nonpoint source issues are at the forefront. Point source needs also need additional resources, especially in relation to recent legislation that is expected to increase monitoring, inspections and enforcement.

Russian/Bodega WMA
In the Russian/Bodega WMA (pages 13-40) the primary water quality goals focus on protecting beneficial uses of surface and ground water such as salmonid fishery values, recreation, and domestic, municipal and agricultural water supply. Maintaining the core regulatory activities associated with point source waste discharges to surface and ground water from municipal and industrial sites is a high priority and is mandatory. Permitting, compliance inspections, enforcement and cleanup activities are performed on those facilities with the highest threat and/or actual impact on water quality. The program of investigation and follow-up of spills and complaints regarding water quality problems will continue. Discharges of PCE, petroleum hydrocarbons, pesticides, nutrients, bacteria and sediment are the primary pollutants of concern.

Nonpoint source discharges are addressed by the core regulatory program storm water permits and inspections, and by the nonpoint source program through timber harvest inspections, outreach, grants, and promoting land management measures that are protective of beneficial uses. The nonpoint source issues are more difficult to address due to their diffuse nature. Emphasis on animal facility waste control, erosion control, riparian improvements, and fishery habitat enhancement has increased. The primary concerns include sedimentation, nutrients, and riparian destruction. Ground water protection activities are focused on protecting drinking water wells in areas of high ground water use. Prompt investigation, cleanup, and abatement activities are used to protect the beneficial uses.

Klamath WMA
In the Klamath WMA (pages 41-62) the following broad goals provide a focus for water quality control activities: 1) protect and enhance the salmonid fishery (Mainstem and tributaries below Iron Gate Dam), 2) protect and enhance coldwater, warmwater and endangered aquatic species, 3) maintain

the viability of agriculture and timber uses, 4) maintain recreational opportunities, and 5) protect groundwater uses.

North Coast Rivers WMA
In the North Coast River WMA (pages 63-144) the overall emphasis is the inspection of timber harvest plans for implementation of the Forest Practice Rules and best management practices to ensure protection of water quality and beneficial uses. Through recent budget actions the timber harvest program activities on private land in concert with California Department of Forestry and Fire Protection have been expanded. The future development of a Basin Plan amendment for TMDL waste reduction strategies for sediment is another primary activity by Regional Board staff. This WMA is the focus of the first phase of the multi-agency North Coast Watershed Assessment Program effort.

Humboldt Bay WMA
In the Humboldt Bay WMA (pages 145-170) the following broad goals provide a perspective from which to view the specific goals and actions presented Section 2.4: 1) improve coordination, education, outreach, assessment, and monitoring, 2) protect surface and ground water uses for municipal supply, recreation, and industrial shellfish harvest, and 3) protect and enhance the anadromous salmonid resources.

Eel River WMA
In general, the primary issues associated with water quality in the Eel River WMA (pages 171-192) are focused on the beneficial uses for drinking water supply, recreation, and the salmonid fishery. Since the watershed is located in steep forested terrain with highly erosive soils and high rainfall, erosion and sediment production and transport are high. For most of the watershed the issues of temperature and sedimentation and their impacts on the salmonid fishery are of high concern, involving the timber and rangeland industries. Other issues include ground water contamination, dairies in the delta area near the ocean, and localized contamination of surface and ground waters.

Trinity River WMA
The broad goals for this WMA (pages 193-206) include improving the anadromous fishery through sediment reductions and habitat enhancements and maintaining the other high beneficial uses of both surface and ground water.

For more information or copies of the Chapter, contact Janet Blake at 707-576-2805 or blakj@rb1.swrcb.ca.gov.

SECTION 1

INTRODUCTION

This document comprises the North Coast Region Water Quality Control Board's chapter for the Integrated Plan for Implementation of the Watershed Management Initiative (WMI). It covers a 5-year planning horizon. Fiscal year 2001-02 funding levels plus adjustments for known allocation changes were used as the baseline for resources.

The process for the North Coast Region (NCR) is responsive to the Watershed Management Initiative called for in the State Water Resources Control Board *Strategic Plan* (June 22, 1995). It essentially involves designating Watershed Management Areas (WMAs) and performing steps as described below:

- assessing water quality related issues on a watershed basis,
- developing prioritized water quality goals for watersheds from the issues,
- addressing the issues with various programs through a multi-year implementation strategy, and
- evaluating progress at the end of a specified time period.

This chapter is dynamic, and as such, represents the best information and strategy at the time of this writing and for the resources made available to develop it. Also recognize that this document is an administrative management tool, and by its very nature, must be flexible and responsive to the adaptive management required in addressing issues with changing priorities and new information.

Following is a description of each of the sections:

Section 1 - Introduction

This section briefly describes the Region's Chapter, and the integrated approach we propose for addressing water quality management in the Region.

Section 2 - Watershed Activities

2.0 Background - explanation of the integrated watershed management approach for the six Watershed Management Areas (WMA) in the Region. Each WMA plan includes statements of concerns and issues, water quality goals, and an implementation strategy.
2.1 Russian/Bodega Watershed Management Area
2.2 Klamath Watershed Management Area
2.3 North Coast Rivers Watershed Management Area
2.3.3 Mattole River
2.3.4 Ten Mile River
2.3.5 Noyo River
2.3.6 Big River
2.3.7 Albion River
2.3.8 Navarro River
2.3.9 Greenwood Creek
2.3.11 Garcia River
2.3.12 Gualala River
2.4 Humboldt Bay Watershed Management Area
2.5 Eel River Watershed Management Area
2.6 Trinity River Watershed Management Area

2.7 Clean Water Action section 303(d) (TMDLs)- This section of the Clean Water Act requires listing of waterbodies not meeting water quality standards and prioritization of those waterbodies for waste reduction activities. Schedules for addressing section 303(d) are included in two tables.

Section 3 - Regional Activities

Activities not prioritized on a watershed basis or not included in a targeted watershed are explained and prioritized here.

Appendix A - Partial Inventory of Work Activities

This table contains listings of NPDES and waste discharge requirements re-issuance dates, and compliance inspection scheduling.

Appendix B - Beneficial Use Definitions

Appendix C - Geographic Information System

Appendix D – Nonpoint Sources Tables

Appendix E – SWAMP Monitoring Stations

Appendix F – Funding Sources and Target Grant Projects

The North Coast Region's Process

The NCR proposes to rotate through WMAs, dealing with three areas initially and rotating other areas into the process on a planned basis as resources allow. The NCR believes that this is the best use of resources at this time: to focus on a few WMAs at a time, cycling back through them every five to seven years. Having the cycle identified and the goals prioritized will make resource needs more apparent. The management areas are prioritized based on a number of factors, including the known water quality impairment, adequacy of existing data, the extent of development and/or land use change, likelihood for problems to increase, and the availability of management tools for the problems.

It is important to recognize that non-discretionary activities, such as issuing federal permits, will continue in the non-targeted watershed areas. Targeting of a watershed area is for the purpose of identifying issues and problems and developing an implementation strategy with public involvement. In addition, some programs may not lend themselves to targeting or prioritization on a watershed basis and will be dealt with on their own prioritization scheme.

One such issue is ground water. Even though ground water related activities are included in the management plans, the full integration of ground water activities with surface water activities in the delineation by watershed is a developing process. The advantage of addressing ground water issues on a geographic basis is recognized, but that concept has yet to be fully integrated into this process.

The vision on a statewide basis of the watershed-based process, is a yearly evaluation of the state board units' and regional boards' multi-year plans by a management team representing State Board, regional boards, and US EPA. The intent is to provide a multi-year perspective to all participants at the same time, thus avoiding multiple negotiations among the various participants at separate times. This will streamline the process in addition to providing the integration of programs on a watershed basis and in a multi-year perspective.

The focus of the watershed-based effort is to assure all NCR activities are coordinated throughout a watershed in an efficient, integrated manner. Related land use issues will be addressed through self-determined compliance with appropriate enforcement if pollution events occur, per current practices. Water resources issues will be coordinated with appropriate state and federal agencies, such as the Division of Water Rights and Department of Water Resources.

For the purposes of this process, "management area" is the basic planning unit and may contain one or more drainage "basins" or "watersheds." The NCR Watershed Management Areas (WMAs) and their watersheds are depicted in Figure 1-1. They are:

- 2.1 Russian/Bodega WMA
- 2.2 Klamath WMA
- 2.3 North Coast Rivers WMA
  - 2.3.3 Mattole River
  - 2.3.4 Ten Mile River
  - 2.3.5 Noyo River
  - 2.3.6 Big River
  - 2.3.7 Albion River
  - 2.3.8 Navarro River
  - 2.3.9 Greenwood Creek
  - 2.3.11 Garcia River
  - 2.3.12 Gualala River
- 2.4 Humboldt Bay WMA
- 2.5 Eel River WMA
- 2.6 Trinity River WMA

Note that the "management areas" are on a different scale than the basins and hydrologic units specified in the *Water Quality Control Plan for the North Coast Region* (Basin Plan). This is a conscious effort to reduce the number of units within this process for reasonable assessment and budgeting. The individual watersheds and hydrologic units are not ignored and may be assessed at that finer level of resolution in the process.

The Regional Water Board activities to address issues and problems are prioritized in recognition of the reality that resource allocations change. As such, this process does not promise to address all issues within a specified time period, rather to assess and plan for each basin and deal with the issues on a priority basis.

The overall process involves first identifying and assessing the water quality problems in the basin, and second, developing a strategy to implement specific activities to address the identified problems. This process will be employed on a rotating basis, ensuring that each management area is assessed and a plan developed once within the cycle. Implementation of the resultant strategy is then scheduled according to the complexity of the issues and the tools and resources available to address the issues. Water quality goals to be addressed are prioritized and will be budgeted within the area's schedule. An evaluation step ends the cycle, providing feedback to the next cycle for a particular management area. It is important to recognize that one cycle can begin an activity that may carry into the next cycle. When the short-term goals are reached, the activities to address long-term goals are left in place, and another management area is addressed on a priority list. The planning document resulting from the process is a multi-year watershed management document for water quality activities.

Prioritizing management areas (and the basins or watersheds within them) may result in shifts in resources, which are identified within the management document. For instance, the decision may be

made to divert part of the core regulatory activities from one area to another to address the short-term goal of reviewing all waste dischargers within the area once in a cycle.

It is important to recognize that presently specific mandated regulatory activities will not allow shifts in resources, and that some programs' priorities cannot be set on a geographic basis. Those activities will also be described in the document and listed for the priority areas. For example, the West College Avenue at Clover Drive area in Santa Rosa is contaminated with the solvent, PCE. It merits considerable staff effort in a coordinated multi-agency approach to describe the contamination, threats to public health, identification of responsible parties, and options for remediation while ensuring safe, secure water supplies are available. This activity will proceed as a high priority for Regional Board resolution, regardless of the level of priority for the Russian/Bodega Management Area as a whole.

Additionally, addressing the ocean and near shore areas not included in harbors or bays in individual WMAs is a necessary part of the process. At this point we recognize that near shore areas may be affected by land-based activities in specific watersheds. We will attempt to determine the extent to which land-based activities are affecting ocean resources when data indicate ocean impacts. The watershed approach would be used to address the freshwater and land-based problems. Also, some form of regional or statewide ocean and near shore monitoring program should be supported.

The Rotating Approach

The Basin Plan identifies thirteen specific hydrologic units in the North Coast Region. However, we consciously have combined hydrologic units into a more manageable number of management areas (Figure 1-1).

Each management area will be addressed through the process as described below, and on a cycle that proposes particular steps in areas sequentially through the cycle. The original NCR plan was to sequence through the major steps for all areas on a seven-year cycle, individual areas taking five to seven years. While a targeted WMA is receiving specific attention, the routine regulatory and monitoring activities continue to occur in non-targeted WMAs. For the NCR, the first areas in the process were the Russian/Bodega, Klamath, and Garcia rivers. Staffing levels and new priorities dictated by a TMDL lawsuit have shifted the rotation and varied the level of involvement or focus in some WMAs.

Problem Identification and Assessment

This process involves public meetings to identify concerns, review of existing water quality and land use data (including discharger self-monitoring, environmental documents, etc.) to describe existing and potential pollutants, and a comprehensive outline of the current institutional framework. A prioritized set of water quality goals should arise from this process.

Development of an Implementation Strategy

This process involves the assignment of work tasks or activities and any additional institutional framework to achieve the goals for the management area. It may include a significant water quality sampling effort aimed at answering questions raised in the problem identification and assessment phase, logically focused on the identified needs and phased into the cycle for each particular watershed. Routine compliance monitoring would be included in the strategy, but independent of the individual watershed cycle. This section also contains significant narrative to describe the manner in which goals will be achieved. Narrative from this section could be transferred to a grant workplan for funding. We expect public participation to play a significant role in the development of the strategy, especially considering the level of inter-agency and public interest group participation. The first phase of the watershed process is satisfied when tables summarizing prioritized activities and the resource needs for achieving the goals are prepared as the final products.

NCR staff has performed a preliminary assessment and strategy development. The products of those efforts will be refined through the public participation process, concurrent with existing regulatory and planning activities in the basins.

Implementation
Implementing the strategy begins the second phase of the process. The work efforts described in the strategy development phase are implemented on a time schedule. Any of the work efforts may be implemented, for instance a water quality assessment program that would provide information to the next cycle's assessment step. Another example: the TMDL process for the Laguna de Santa Rosa requires work efforts within the assessment, monitoring, core regulatory (permitting and compliance/ enforcement), nonpoint source, and local agency contract areas [CWA sections 205(j) and 319(h) grants and Water Bond (Proposition 13) grants].

Evaluation of the Implementation and a Feedback Loop
This will feed into the next cycle for the management area and is essential to achieving short-term goals, maintaining adequate controls to ensure long-term goals are met, and providing a mechanism for addressing emerging issues. Evaluation occurs through waterbody monitoring and inspections, both on-the-ground activities with direct assessments of waterbody condition. It is here that true ambient monitoring is applied apart from the watershed cycle to provide information on long-term trends. Periodic review of the strategy and its effectiveness combined with public participation also provides guidance for the future. The results of the periodic evaluation should be used to keep the activities on track; end-of-cycle evaluation feeds into future problem identification and assessment, providing a model for similar watersheds.

It is not expected that all issues within a WMA will be addressed in a single cycle. For that reason, the feedback loop is especially important in identifying issues that require work after the first cycle. It will form the basis for the prioritization of issues in the subsequent cycle. It identifies discrepancies between goals and actual accomplishments, allowing for redirection of resources to address needed tasks where possible. Although the product of developing a strategy is the assignment of resources to address problems and achieve goals, resource shifts may be limited by emergencies, other commitments, funding constraints and specific mandates.

The North Coast Region faces several water quality issues. The highest priority water quality problems include contamination of surface water due to nonpoint source pollution from storm water runoff, erosion and sedimentation (roads, vineyards, and timber harvest), failing septic tanks, channel modification, gravel mining and dairies, and MTBE and dioxin contamination. Ground water contamination from PCE and leaking underground tanks and health and safety issues from contaminated areas that are open to the public are also priority issues. High priority water quality problems due to point sources include chronic violations by POTWs and lack of permit compliance. Lack of funding for water quality monitoring and watershed assessment compounds the difficulty of addressing these issues. See Appendix D - *Nonpoint Source Tables,* Table 1 for Regional NPS problems by watershed.

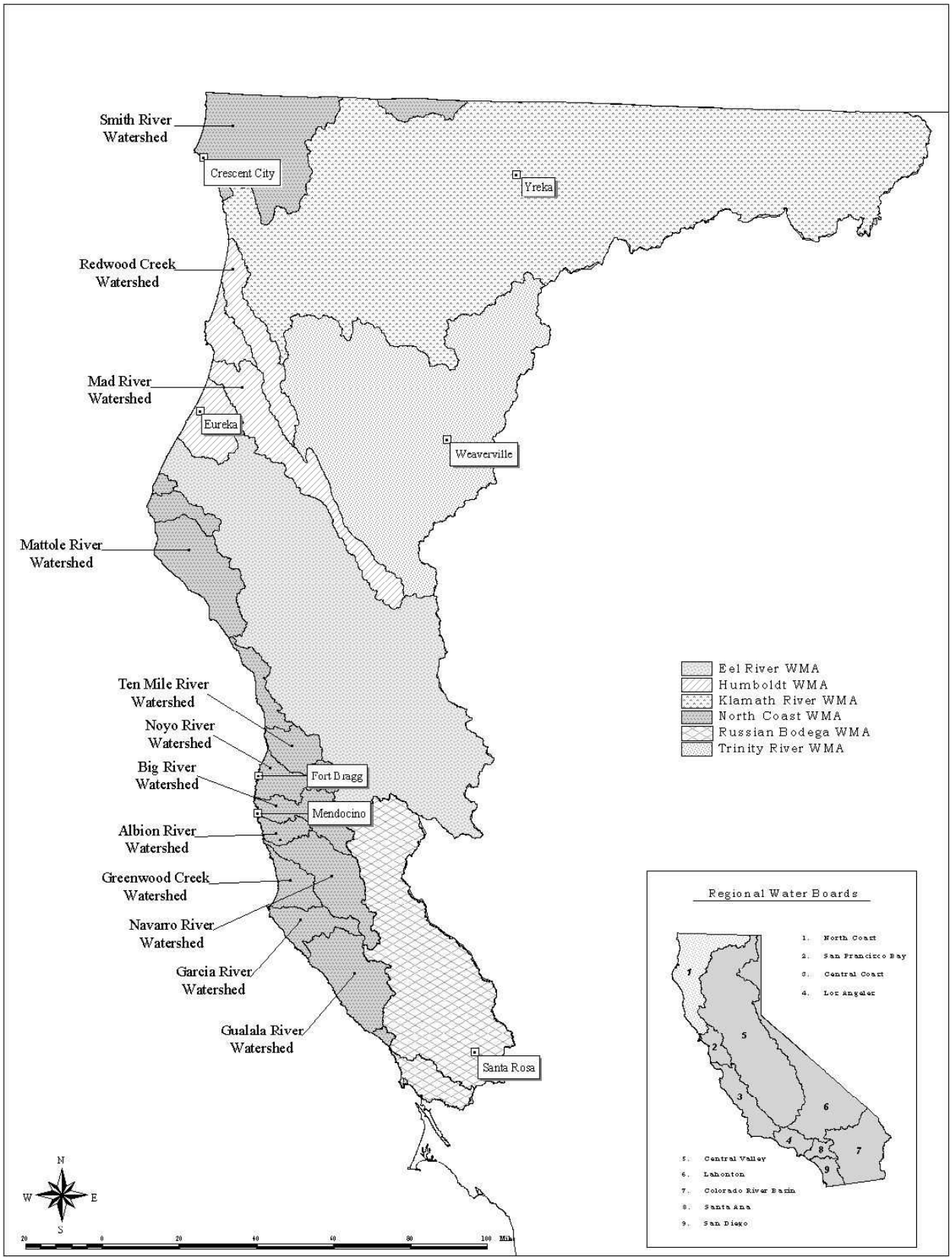

Figure 1. Watershed Management Areas for the North Coast Regional Water Quality Control Board

The highest priority activities that have come from this process include:

- developing and implementing Total Maximum Daily Load strategies (mostly sediment and temperature associated with salmonid resource declines)
- maintaining the core regulatory program for regulated dischargers
- increasing emphasis on storm water runoff issues
- increasing monitoring and assessment activities
- increasing emphasis on nonpoint source issues (including forestry, rural roads, and hillside vineyard development), especially as they affect salmonid resources
- maintain the ground water cleanup programs for high priority sites
- improving outreach and community involvement in decisions
- fostering watershed groups and citizen monitoring

The highest priority issues that need more funding if they are to be properly addressed are: TMDL implementation, responses to contaminated drinking water wells, inspection and enforcement of nonpoint source pollution issues, monitoring and assessment, outreach and education, basin planning efforts to update water quality objectives in the Basin Plan to protect threatened species and beneficial uses, and improvement of state and local government interactions.

In the **Russian/Bodega WMA** (see pg. 13-40) the primary water quality goals focus on protecting beneficial uses of surface and ground water such as salmonid fishery values, recreation, and domestic, municipal and agricultural water supply. Maintaining the core regulatory activities associated with point source waste discharges to surface and ground water from municipal and industrial sites is a high priority. Permitting, compliance inspections, enforcement and cleanup activities are performed on those facilities with the highest threat and/or actual impact on water quality. Discharges of PCE, petroleum hydrocarbons, pesticides, nutrients, bacteria and sediment will be the primary pollutants of concern.

Nonpoint source discharges are addressed by the core regulatory program storm water permits and inspections, and by the nonpoint source program through timber harvest inspections, outreach, grants, and promoting land management measures that are protective of beneficial uses. We have increased our emphasis on animal facility waste control, erosion control, riparian improvements, and fishery habitat enhancement. The primary concerns include sedimentation, elevated stream temperatures, nutrients, and riparian destruction.

In the **Klamath WMA** (see pg. 41-62) the following broad goals provide a focus for water quality control activities: 1) protect and enhance the salmonid fishery (mainstem and tributaries below Iron Gate Dam), 2) protect and enhance warm water and endangered aquatic species, 3) maintain the viability of agriculture and timber uses, 4) maintain recreational opportunities, and 5) protect ground water uses.

In the **North Coast River WMA** (see pg. 63-144) the overall emphasis is the inspection of timber harvest plans for implementation of the Forest Practice Rules and best management practices to ensure protection of water quality and beneficial uses. The NCR is expanding timber harvest program activities on private land in concert with California Department of Forestry and Fire Protection. The future development of TMDL waste reduction strategies for sediment will be another primary activity by Regional Board staff.

In the **Humboldt Bay WMA** (see pg. 145-170) the following broad goals provide a perspective from which to view the specific goals and actions presented Section 2.4: 1) improve coordination, education, outreach, assessment, and monitoring, 2) protect surface and ground water uses for

municipal supply, recreation, and industrial shellfish harvest, and 3) protect and enhance the anadromous salmonid resources.

In general, the primary issues associated with water quality in the **Eel River WMA** (see pg. 171-192) are focused on the beneficial uses for drinking water supply, recreation, and the salmonid fishery. Since the watershed is located in steep forested terrain with highly erosive soils and high rainfall, erosion and sediment production and transport are high. For most of the watershed the issues of temperature and sedimentation and their impacts on the salmonid fishery are of high concern, involving the timber and rangeland industries. Other issues include ground water contamination, dairies in the delta area near the ocean, and localized contamination of surface and ground waters.

In the **Trinity River WMA** (see pg. 193-206) broad goals include improving the anadromous fishery through sediment reductions and temperature controls, and habitat enhancements and maintaining the other high beneficial uses of both surface and ground water.

Existing Regional Board Programs

The major programs or work efforts that will be used to address problems and achieve goals in a specific management area are consolidated into ten groups. Each is briefly described below, and will be used in the *Implementation Strategy* sections of individual watershed plans.

Assessment: Assessing waterbody condition and specific relationships of land use or waterbody system dynamics is essential to identifying issues and assigning activities for correcting problems. Additional components of assessment include gathering public perspectives on water quality related issues and assessing the adequacy of existing institutional frameworks in correcting problems. (Note: the outcome is not intended to be additional framework, rather coordination and efficiency to improve upon the existing framework.) Focused water quality studies, TMDL approaches, ground water pollution identification, nonpoint source assessments, and full watershed assessments under the new North Coast Watershed Assessment Program (NCWAP) spearheaded by the California Resources Agency are included in this program category. The new NCWAP is described in more detail in Section 3: Regional Activities.

Monitoring: Trends in water quality and habitat, and the effectiveness of control strategies and TMDLs will be monitored through the new Surface Water Ambient Monitoring Program (SWAMP established photo points, aerial observation, and other observations relevant to the problems being addressed and the activities being used). Activities include discharger compliance and self-monitoring under the Core Regulatory and ground water programs. The new SWAMP is described in more detail in Section 3: Regional Activities.

Core Regulatory: The Regional Water Board issues federal NPDES permits for discharges of waste to waterbodies in the region, and state Waste Discharge Requirements (WDRs) for wastes contained on site or discharged to land. Both prescribe the quantity, quality, and conditions under which waste can be discharged and require self-monitoring. Activities include issuance of new permits/WDRs, updating existing permits/WDRs, compliance inspections, review of self-monitoring reports, response to spills and complaints, storm water runoff, and associated enforcement. In addition, SB 390 will require the Regional Water Board to update it waivers of waste discharge requirements by January 1, 2003.

Ground water: Activities to protect and clean up ground water are associated with Spills, Leaks, Investigations, and Cleanup (SLIC), wellhead protection, the above ground and underground tank programs (including local oversight programs), as well as site mitigation activities under the Department of Defense and Superfund programs.

Water Quality Certification: Activities are associated with the Clean Water Act (CWA) section 401 certification that relates to protection of wetlands and stream channel work and activities.

Nonpoint source: The long term goals are aimed at enhancing the overall recognition and understanding of nonpoint sources, especially sediment and nutrients, and elimination of the those sources as limiting factors in the maintenance and enhancement of salmonid populations and other aquatic organisms. Our program follows the statewide Nonpoint Source Pollution Control Program, using three tiers to accomplish the goals: Tier 1 - self-determined compliance with water quality regulations, Tier 2 - regulatory encouragement, such as performing management practices in lieu of obtaining a waste discharge permit, and Tier 3 - regulation through permit activities and enforcement actions. Timber harvest on state, federal, and private lands, and the development of TMDL waste reduction strategies are high priority throughout the region. Localized agricultural problems are being addressed in the upper Klamath/Lost River area, Shasta and Scott river watersheds, Eel River delta area, and the Russian River WMA. Outreach and specific nonpoint source activities are taking place in the WMAs.

Timber Harvest: The NCR has an extensive Timber Harvest program where staff review and inspect timber harvest plans for implementation of the Forest Practice Rules and best management practices to ensure protection of water quality and beneficial uses. This program is being expanded to activities on private land in concert with California Department of Forestry and Fire Protection. Review and inspection of timber sales as well as other projects on U.S. Forest Service lands are also being increased.

Wetlands: The NCR has wetlands in lagoon areas along the coast and in the Santa Rosa Plain. Many of these areas are threatened by development activities such as new housing projects and vineyards. Long-term goals are directed toward wetlands protection and management. Most activities to protect wetlands take the form of CWA section 404 review and CWA section 401 Water Quality Certification. At this time, other agencies are taking the lead on wetlands in the region such as the Army Corps of Engineers, the Department of Fish and Game, and the Division of Water Rights. The NCR intends, in the near future, to develop a policy concerning wetland conservation in the region starting with an inventory and mapping of the resource, assessing the current conditions, and forming a strategy for conservation. See Section 3: Regional Activities for more information on the NCR wetland activities.

Local Contracts: The Clean Water Act sections 319(h), 205(j), and 104 grant programs, and Water Bond (Proposition 13) grants result in contracts with local agencies or entities to plan, monitor, and improve water quality.

Water Quality Planning: Regional Water Board planning activities include the basin plan triennial review process, development of water quality objectives, development of action plans (including TMDLs), participation in watershed planning activities (including local watershed groups), basin plan amendments, and review of environmental documents. The Triennial Review process was started again in April of 1998. Some planning tasks are watershed based; others are regional in nature. A reimbursable contract with the Sonoma County Water Agency for review and revision of water quality standards to comply with a “no take” provision of salmonids listed in the Russian/Bodega WMA under the federal Endangered Species Act was signed in April of 1998. The Basin Plan objectives have been reviewed, and changes to temperature, dissolved oxygen and sediment objectives are being proposed. See Section 3: Regional Activities for more information on Basin Plan revisions currently planned or underway.

Regional (Non-Watershed Based) Activities
As previously discussed, activities not prioritized or targeted on a watershed basis are addressed differently. For those activities occurring in a targeted WMA, we have attempted to describe the activities within the WMA section. Examples of these are: underground tank program, Department of Defense cleanup sites, and core regulatory activities like permit adoption and inspections.

For activities of a regional nature, such as Triennial Review of the Water Quality Control Plan for the North Coast Region and the Water Quality Assessment (305(b) report), there are descriptions in Section 3: Regional Activities, as well as descriptions within the individual watershed sections appropriate to those activities that are specific to a particular WMA.

To the extent possible all activities within a targeted WMA are incorporated in its section of this chapter irrespective of whether the activities are targeted or prioritized on a watershed basis. For those WMAs that are not yet targeted, descriptions of all activities that are not regional in nature will be phased into individual WMA sections as progress is made through the rotating process.